

Listing of the Claims:

1. (currently amended) A method for treating an area of a semiconductor wafer surface to reduce surface irregularities and stress concentrations, comprising:

providing a semiconductor wafer having scribe streets on an active surface, and a back surface opposing the active surface;

treating the area tracing the scribe streets on a surface of the wafer with a laser to from a grid-like pattern matching the scribe streets, wherein the ~~[[treated]]~~ traced area is melted by a laser beam and re-solidifies into a more planar profile.
2. (original) The method of claim 1, wherein the treated area is ablated by the laser beam, vaporizing at least a portion of the surface irregularities.
3. (original) The method of claim 1, wherein the laser is a diode-pumped, charge-loaded laser.
4. (original) The method of claim 3, wherein the laser is a soft-marking laser.
5. (original) The method of claim 4, wherein the laser emits green laser light.
6. (original) The method of claim 4, wherein the laser emits infrared laser light.
7. (original) The method of claim 4, wherein the laser is selected from a set consisting of an Nd:YAG laser, a frequency-doubled Nd:YAG laser, an excimer laser, a helium-neon laser, and a carbon-dioxide laser.
- 8-23. (canceled)
24. (new) The method of claim 1, in which the gird-like pattern is on the active surface.
25. (new) The method of claim 1, in which the gird-like pattern is on the back surface.
26. (new) The method of claim 1, further comprising sawing the wafer along the scribe streets and forming kerfs extending towards the back surface.

TI-35356- 2

Appl. No. 10/612,431
Amdt. dated Nov. 1, 2005
Reply to Office action of Aug. 2, 2005

27. (new) The method of claim 26, in which the gird-like pattern has a width wider than the kerfs.

TI-35356- 3